TECHNICAL GUIDE SECTION IV State-Wide Dugout Pond-1 Construction Specification MI-122

CONSTRUCTION SPECIFICATION

MI-122. DUGOUT POND

1. SCOPE

The work shall consist of constructing a dugout pond as shown on the drawings.

2. FOUNDATION PREPARATION

The construction areas shall be stripped of all materials not suitable for the foundation. Such materials shall include organic matter, grasses, weeds, sod, debris and stones larger than 12 inches (300 mm) in diameter.

In an earth embankment foundation area, all channel banks and sharp breaks shall be sloped to no steeper than 1:1.

3. STRIPPED MATERIAL DISPOSAL

Suitable stripped soil material shall be stockpiled for use as topsoil. The other stripped materials shall be buried, removed from the site or otherwise disposed of as indicated by the NRCS inspector.

Stockpiled materials around a construction site should not hinder subsequent construction operations. Where concrete is to be delivered to the site by ready-mix trucks, several openings at strategic points will be required so that concrete will not be required to flow an excessive distance.

Waste material excavated from channels shall be deposited and shaped into spoil banks as indicated on the drawings or as directed by the NRCS inspector.

4. EXCAVATION

Excavation shall be performed as shown on the construction drawings.

5. <u>USE OF EXCAVATED MATERIALS</u>

To the extent they are needed, all suitable materials from the specified excavations shall be used in the construction of required permanent earth fill or rock fill. The suitability of materials for specified purposes shall be determined by the NRCS inspector. The contractor shall not waste or otherwise dispose of suitable excavated materials.

6. DISPOSAL OF WASTE MATERIALS

All surplus or unsuitable excavated materials will be designated as waste and shall be disposed of at the locations shown on the drawings or designated by NRCS inspector or landowner.

7. SAFETY

All excavation work shall provide stable slopes to safeguard the work and the workmen during construction operations. This can be accomplished by: (1) sloping all banks more than 3.5 feet (1.1 m) high back to 1:1, or (2) installing shoring or bracing adequate to prevent banks from sloughing into the excavation.

Where excess water hinders excavation or other construction activities, pump drainage will be used.

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8. EARTH EMBANKMENTS

Earth fill up to 4 feet (1.2 m) high is allowed as a part of this specification (water on the fill is limited to 3 feet (0.9 m).

9. PLACING, SPREADING AND COMPACTION

The placing, spreading and compaction of earth fill shall conform to the following:

- a. Fill shall not be placed on frozen soil. Further, if the working surface becomes slick or saturated, it shall be allowed to dry and be thoroughly scarified before placing additional layers of fill.
- b. The materials placed in the fill shall be free of all sod, roots, frozen soil, snow or ice, stones over 6 inches (150 mm) in diameter or other objectionable material.
- c. The fill material shall have a moisture content sufficient to secure compaction. When kneaded in the hand, it will form a ball that does not readily separate when struck sharply with a pencil and will not extrude out of the hand when squeezed tightly.
- d. All fill materials shall be placed and spread in layers not over 9 inches (230 mm) thick. Each layer shall be compacted by traversing the entire surface with not less than 2 tread tracks of a bulldozer or loaded earth moving equipment or by not less than 1 pass of a sheepsfoot roller exerting a pressure of at least 100 pounds per square inch (7 kg/cm²).
- e. During construction, the entire fill shall be kept approximately level with a small crown in the center to facilitate drainage towards the side slopes.
- f. The distribution of materials throughout the fill shall be such that there will be no lenses, pockets, streaks or layers of materials differing substantially in texture or gradation from surrounding materials.

10. MECHANICAL SPILLWAYS

Mechanical or principal spillways when shown on the construction drawing will be installed in accordance with the applicable construction specifications for the spillways.

11. SEEDING

During and/or immediately following construction, all disturbed areas will be prepared, fertilized, seeded and mulched (if specified) in accordance with Construction Specification MI-166, <u>Seeding</u>.